

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/003101

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 E02D29/045 E04B1/344

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 E01D E02D E04B E04C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 351 353 A (WALTERS) 4 October 1994 (1994-10-04) column 2, line 1-52; figures 1-4	1-3,7,8
Y	US 4 693 634 A (CHIAVES) 15 September 1987 (1987-09-15) figure 14	1-3,7,8
A	GB 766 213 A (BRAUNBOCK) 16 January 1957 (1957-01-16) figures 7,8	4,10
A	US 6 129 484 A (CHIAVES) 10 October 2000 (2000-10-10) column 3, line 4-45; figure 2	5,12
		-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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Date of the actual completion of the international search

28 June 2004

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Kergueno, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/003101

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 5351353	A	04-10-1994	AU GB NZ	642082 B2 2254350 A ,B 242122 A	07-10-1993 07-10-1992 27-01-1995
US 4693634	A	15-09-1987	IT AT AU AU BR CA DE DK WO EP JP JP MX SU	1180072 B 38409 T 573874 B2 4546485 A 8507199 A 1226448 A1 3566009 D1 53486 A ,B, 8505653 A1 0219501 A1 6001038 B 61502406 T 164693 B 1484298 A3	23-09-1987 15-11-1988 23-06-1988 31-12-1985 04-08-1987 08-09-1987 08-12-1988 04-02-1986 19-12-1985 29-04-1987 05-01-1994 23-10-1986 17-09-1992 30-05-1989
GB 766213	A	16-01-1957	CH DE	314575 A 1045069 B	30-06-1956 27-11-1958
US 6129484	A	10-10-2000	IT AT AU DE DE EP IL WO ES PT	T0950922 A1 203579 T 7571396 A 69614134 D1 69614134 T2 0861358 A1 124416 A 9719231 A1 2162112 T3 861358 T	19-05-1997 15-08-2001 11-06-1997 30-08-2001 14-03-2002 02-09-1998 06-12-2000 29-05-1997 16-12-2001 30-01-2002
FR 2785311	A	05-05-2000	FR	2785311 A1	05-05-2000